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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

1033-SS00382

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on

Signature

Typed or printed name Deirdre Waters

Application Number

10/607,811

Filed

June 27, 2003

First Named Inventor

Richard O. Slackman

Art Unit

2166

Examiner

CHANNAVAJJALA, Srirama

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒

attorney or agent of record.

Registration number 38,342☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature

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8-11-2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒*Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Richard O. Slackman

Title: RANK-BASED ESTIMATE OF RELEVANCE VALUES

App. No.: 10/607,811 Filed: June 27, 2003

Examiner: Channavajjala, Srirama Group Art Unit: 2166

Customer No.: 60533 Confirmation No.: 8389

Atty. Dkt. No.: 1033-SS00382

Mail Stop AF

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

**REMARKS IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Dear Sir:

In response to the Final Office Action mailed on June 1, 2006 (hereinafter, "the Final Office Action"), Applicant files herewith a Notice of Appeal and a Pre-Appeal Brief Request for Review and request review of the following issues:

1. CLAIMS 1, 5-8, 21, 25-28, 41, AND 45-48 ARE ALLOWABLE OVER MAO

Applicant respectfully traverses the rejection of claim 1 under 35 U.S.C. § 102(e) over U.S. Patent No. 6,728,704 ("Mao") at pages 2 and 3, paragraphs 7-12 of the Final Office Action. Independent claims 1, 21 and 41 recite estimating a relevance value of a particular search result in the ranked list based on its rank and actual relevance values and ranks of at least two others of the search results.

Mao discloses a method and apparatus for merging result lists from multiple search engines in a manner that seeks to avoid computational overhead associated with current methods. *See Mao*, col. 2, lines 57-60. In particular, Mao discloses that a scoring value is determined for each entry in the list, such as by setting the scoring value equal to a total number of times each word in the query appears on the entry. *See Mao*, col. 5, lines 56-65. A representative score is then determined by

determining an arithmetic average or a proportional value to the average for the set of scoring values. *See Mao*, col. 6, lines 1-5. Thus, Mao estimates a representative score based on a weighting of the scoring values alone. Mao fails to disclose or suggest estimating a relevance value of a particular search result in the ranked list based on its rank and actual relevance values and ranks of at least two others of the search results, as recited by claims 1, 21, and 41. Accordingly, Mao fails to disclose or suggest at least one element of each of the independent claims 1, 21 and 41. Dependent claims 5-8, 25-28, and 45-48 dependent from allowable claims 1, 21 and 41, respectively. Therefore, claims 5-8, 25-28 and 45-48 are allowable, at least by virtue of their dependency from one of claims 1, 21 and 41.

2. CLAIMS 2-4, 9-10, 22-24, 29-30, 42-44, AND 49-50 ARE ALLOWABLE OVER MAO IN VIEW OF ROSE

Applicant traverses the rejection of claims 2-4, 9-10, 22-24, 29-30, 42-44, and 49-50 under 35 U.S.C. 103(a) over Mao in view of U.S. Patent No. 5,870,740 (“Rose”) at page 15, paragraphs 13-18 of the Final Office Action. With regard to claims 2-4, 22-24, and 42-44, the Final Office Action acknowledges that Mao fails to disclose or suggest that estimating comprises fitting a curve, to represent relevance as a function of rank, to the actual relevance values and the ranks of the at least two others of the search results, as recited by claims 2, 22, and 42.

Rose discloses that the raw relevance scores of the results list are adjusted, using equation 1 of Rose at col. 6, to produce an adjusted score that takes into account a count of query terms in each document and a number of words in a particular query. *See Rose*, col. 6, lines 1-39. Rose discloses that this equation scales relevance results for short queries. *See Rose*, col. 7, lines 11-30. Rose discloses that each document score is calculated based on the adjusted relevance ranking (s1). *See Rose*, col. 7, lines 47-50. Thus, the system of Rose calculates an adjusted score based on the document content without regard for the rank of the result or of other results.

The equation of Rose fails to estimate a relevance value of a particular search result in the ranked list based on its rank and actual relevance values and ranks of at least two others of the search results, as recited by independent claims 1, 21, and 41. Accordingly, the asserted combination of Rose and Mao fails to disclose or suggest at least one element of each of the

independent claims 1, 21 and 41 and of claims 2-4, 9-10, 22-24, 29-30, 42-44, and 49-50 at least by virtue of their dependency from one of claims 1, 21 and 41.

Moreover, Rose calculates the adjusted relevance value for each result, achieving a scaled list of documents without curve fitting. *See Rose*, col. 7, lines 47-50. Thus, Rose does not disclose or suggest estimating a relevance value wherein estimating comprises fitting a curve, as recited by claims 2, 22, and 42. Accordingly, the asserted combination of Mao and Rose fails to disclose or suggest at least one element of claims 2, 22 and 42 and of claims 3-4, 23-24 and 42-44, at least by virtue of their dependency from one of claims 2, 22 and 42.

With respect to claims 10, 30 and 50, the Final Office Action cites to Mao at col. 6, lines 20-24 as disclosing “wherein said estimating comprises linearly interpolating between the first actual relevance value and the second actual relevance value,” as recited in claims 10, 30 and 50. However, the cited passage states:

Each list is assigned a probability value equal to its representative value’s percentage of the total representative values for all lists.

Mao, col. 6, lines 20-23.

The assignment of probability values in Mao does not equate to linearly interpolating between the first actual relevance value and the second actual relevance value, as recited in claims 10, 30 and 50. The asserted combination of Mao and Rose fails to disclose or suggest at least one element of claims 10, 30 and 50 and of each of the claims 2-4, 9-10, 22-24, 29-30, 42-44, and 49-50, at least by virtue of their dependency from one of claims 10, 30 and 50.

3. CLAIMS 11-13, 31-33, AND 51-53 ARE ALLOWABLE OVER DUTTA

Applicant respectfully traverses the rejection of claims 11-13, 31-33 and 51-53 under 35 U.S.C. § 102(b) over U.S. Patent Application Publication No. 2002/0078045 (“Dutta”) at page 7, paragraphs 20-22 of the Final Office Action. Claims 11, 31 and 51 recite determining a search engine weighting value based on the category of weighting values and the first associated relevance values. Dutta discloses a system in which search results obtained by a search engine server may be ranked by associating user category weights with each file indexed in a search database. *See Dutta*, Abstract. Dutta discloses weighting individual documents according to “meta tag identifier, which

may be embedded in the file” or based on a compiled history of user interactions with files and websites to adjust the popularity of such documents based on their popularity with the groups of users. *See Dutta*, pp. 8-9, paragraphs 0048 and 0051). Thus, Dutta discloses weighting individual documents or websites, not search engines. Dutta fails to disclose or suggest determining a search engine weighting value based on the category of weighting values and the first associated relevance values, as recited by independent claims 11, 31, and 51. Accordingly, Dutta fails to disclose or suggest at least one element of claims 11, 31, and 51 and of claims 12-13, 32-33, and 52-53 at least by virtue of their dependency from one of the independent claims 11, 31, and 51.

4. CLAIMS 14-15, 17-20, 34-35, 37-40, 54-55, AND 57-60 ARE ALLOWABLE OVER MAO IN VIEW OF ROSE

Applicant respectfully traverses the rejection of claim 14-15, 17-20, 34-35, 37-40, 54-55, and 57-60 under 35 U.S.C. § 103(a) over Mao in view of Rose at page 9, paragraphs 24-29 of the Final Office Action. The Final Office Action acknowledges that Mao fails to disclose determining, for each of the search engines, an associated weighting value, as recited by independent claims 14, 34, and 54. The Final Office Action asserts that Rose discloses this feature at col. 2, lines 29-32 and col. 3, lines 1-6. Rose states:

Every document in the collection is then assigned a vector of weights, based on various weighting methods such as TFxIDF [term frequency divided by the number of documents containing the term] weighting and weighting that takes TFxIDF and a length normalization statistic into account.

Rose, col. 2, lines 29-32.

Rose further states:

World Wide Web search services (Lycos, InfoSeek, Excite, and AltaVista) present users with an entry field that accepts less than one line of text. The statistical methods that provide relevance-ranking, such as “TFxIDF weighting” with the cosine similarity metric, attempt to “reward” documents that are well-characterized by each query term.

Rose, col. 3, lines 1-6.

The cited passages of Rose fail to disclose or suggest determining, for each of the plurality of search engines, an associated weighting value, as recited by claims 14, 34 and 54. Accordingly, the asserted combination of Mao and Rose fail to disclose or suggest at least one element of claims

14, 34, and 54 and of claims 15, 17-20, 35, 37-40, 55, and 57-60, at least by virtue of their dependency from one of the allowable claims 14, 34 and 54.

5. CLAIMS 16, 36 AND 56 ARE ALLOWABLE OVER MAO IN VIEW OF ROSE AND IN VIEW OF DUTTA

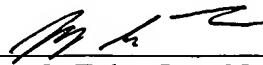
As discussed above, Mao and Rose fail to disclose or suggest determining, for each of the plurality of search engines, an associated weighting value, as recited by claims 14, 34 and 54. As discussed above with respect to claims 11, 31 and 51, Dutta discloses weighting individual documents based on user history or meta data. *See Dutta*, pp. 8 and 9, paragraphs 0048 and 0051. Accordingly, the asserted combination of Mao, Rose, and Dutta fails to disclose or suggest determining, for each of the plurality of search engines, an associated weighting value, as recited by claims 14, 34 and 54, and therefore fails to disclose or suggest at least one element of each of the dependent claims 16, 36, and 56, at least by virtue of their dependency from one of allowable independent claims 14, 34 and 54.

Conclusion

Applicant has pointed out specific features of the claims not disclosed, suggested, or rendered obvious by the references applied in the Office Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of each of the objections and rejections, as well as an indication of the allowability of each of the pending claims. The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-2469.

Respectfully submitted,

8-11-2006
Date



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